

What is claimed is:

1. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence of SEQ ID NO:1,
- 5 b) a naturally-occurring amino acid sequence having at least 90% sequence identity to the sequence of SEQ ID NO:1,
- c) a biologically-active fragment of the amino acid sequence of SEQ ID NO:1, and
- d) an immunogenic fragment of the amino acid sequence of SEQ ID NO:1.

10 2. An isolated polypeptide of claim 1, having a sequence of SEQ ID NO:1.

*An isolated antibody which specifically binds to a polypeptide of claim 1.*

4. A diagnostic test for a condition or disease associated with the expression of GAPIP in a biological sample comprising the steps of:

- a) combining the biological sample with an antibody of claim 3, under conditions suitable for the antibody to bind the polypeptide and form an antibody: polypeptide complex; and
- b) detecting the complex, wherein the presence of the complex correlates with the presence of the polypeptide in the biological sample.

25 5. The antibody of claim 3, wherein the antibody is:

- (a) a chimeric antibody;
- (b) a single chain antibody;
- (c) a Fab fragment;
- (d) a F(ab')<sub>2</sub> fragment; or
- (e) a humanized antibody.

30 6. A composition comprising an antibody of claim 3 and an acceptable excipient.

7. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition of claim 6.

8. A composition of claim 6, wherein the antibody is labeled.

9. A method of diagnosing a condition or disease associated with the expression of GAPIP in a subject, comprising administering to said subject an effective amount of the composition  
5 of claim 8.

*Part B* 10. A method of preparing a polyclonal antibody with the specificity of the antibody of  
claim 3 comprising:

- 10 a) immunizing an animal with a polypeptide of SEQ ID NO:1 or an immunogenic fragment thereof under conditions to elicit an antibody response;
- b) isolating antibodies from said animal; and
- c) screening the isolated antibodies with the polypeptide thereby identifying a polyclonal antibody which binds specifically to a polypeptide of SEQ ID NO:1.

11. An antibody produced by a method of claim 10.

12. A composition comprising the antibody of claim 11 and a suitable carrier.

13. A method of making a monoclonal antibody with the specificity of the antibody of  
claim 3 comprising:

- 20 a) immunizing an animal with a polypeptide of SEQ ID NO:1 or an immunogenic fragment thereof under conditions to elicit an antibody response;
- b) isolating antibody producing cells from the animal;
- c) fusing the antibody producing cells with immortalized cells to form monoclonal  
25 antibody-producing hybridoma cells;
- d) culturing the hybridoma cells; and
- e) isolating from the culture monoclonal antibody which binds specifically to a  
polypeptide of SEQ ID NO:1.

30 14. A monoclonal antibody produced by a method of claim 13.

*Part B* 15. A composition comprising the antibody of claim 14 and a suitable carrier.

16. The antibody of claim 3, wherein the antibody is produced by screening a Fab expression library.

17. The antibody of claim 3, wherein the antibody is produced by screening a recombinant immunoglobulin library.

~~18. A method for detecting a polypeptide of SEQ ID NO:1 in a sample comprising the steps of:~~

a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and  
b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide of SEQ ID NO:1 in the sample.

19. A method of purifying a polypeptide of SEQ ID NO:1 from a sample, the method comprising:  
a) incubating the antibody of claim 3 with a sample under conditions to allow specific binding of the antibody and the polypeptide; and  
b) separating the antibody from the sample and obtaining purified polypeptide of SEQ ID NO:1.